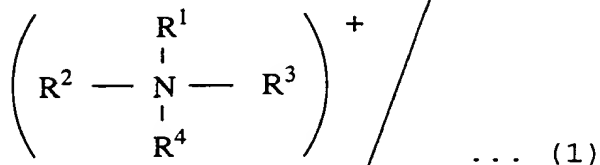


What is claimed is:

1. A process for producing a polymeric actuator, comprising an ion-exchange resin product and metal electrodes which are formed on the surface of the ion-exchange resin product and are insulated from each other, said actuator operating as an actuator by applying a potential difference between the metal electrodes when the ion-exchange resin product is in the water-containing state to allow the ion-exchange resin product to undergo bending or deformation,
- wherein the following steps (i) to (iii) are repeatedly conducted to form the metal electrodes ranging from the surface of the ion-exchange resin product to the inside thereof;
- (i) a step of allowing the ion-exchange resin product to adsorb a metal complex in an aqueous solution (adsorption step),
- (ii) a step of reducing the metal complex adsorbed on the ion-exchange resin product by a reducing agent to deposit a metal on the surface of the ion-exchange resin product (deposition step), and
- (iii) a step of washing the ion-exchange resin product having the deposited metal (washing step).

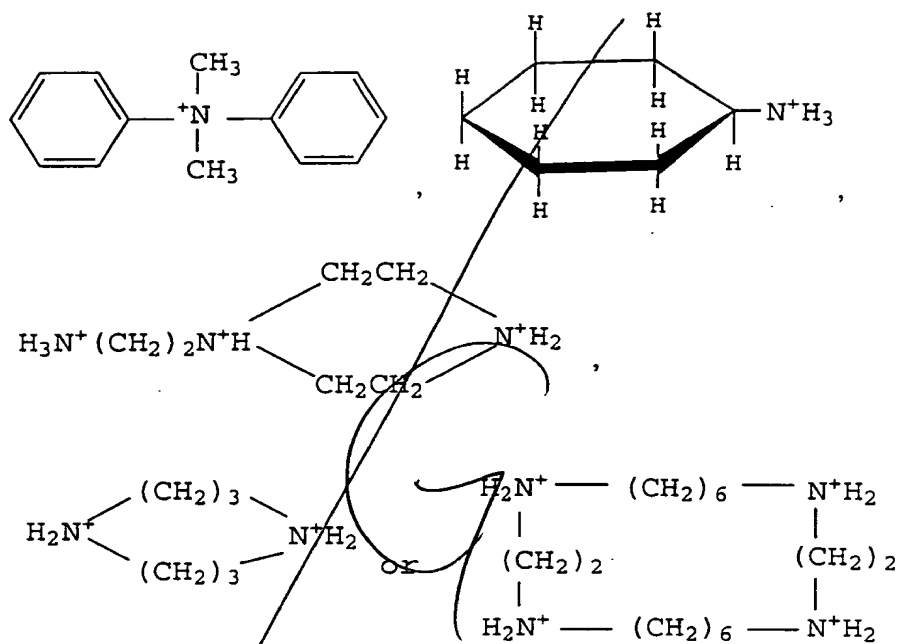
4. The polymeric actuator as claimed in claim 2, wherein the alkylammonium ion is represented by the following formula (1):

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wherein R^1 to R^4 may be the same or different and are each a hydrogen atom, a hydrocarbon group, an oxygen-containing hydrocarbon group or a nitrogen-containing hydrocarbon group, at least one of R^1 to R^4 is a group other than a hydrogen atom, and two or more of R^1 to R^4 may be bonded to form a ring.

5. The polymeric actuator as claimed in ~~any one~~ ~~of~~ claims 2 to 4, wherein the ion represented by the formula (1) is $CH_3N^+H_3$, $C_2H_5N^+H_3$, $(CH_3)_2N^+H_2$, $(C_2H_5)_2N^+H_2$, $(C_4H_9)_2N^+H_2$, $(C_5H_{11})_2N^+H_2$, $(CH_3)_3N^+H$, $(C_2H_5)_3N^+H$, $(C_4H_9)_3N^+H$, $(C_5H_{11})_3N^+H$, $(CH_3)_4N^+$, $(C_2H_5)_4N^+$, $(C_3H_7)_4N^+$, $(C_4H_9)_4N^+$, $H_3N^+(CH_2)_4N^+H_3$, $H_2C=CHCH_2N^+HCH_3$, $H_3N^+(CH_2)_4N^+H_2(CH_2)_4N^+H_3$, $HC\equiv CCH_2N^+H_2$, $CH_3CH(OH)CH_2N^+H_3$, $H_3N^+(CH_2)_5OH$, $H_3N^+CH(CH_2OH)_2$, $(HOCH_2)_2C(CH_2N^+H_3)_2$, $C_2H_5OCH_2CH_2N^+H_3$,



add
A1 }

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F2 }

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G2 }

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